

FIG. 1

10004633 • 120401

10	20	30	40	50	60	
CTGGTGAGGG	GGATCTACAA	CTTGTTCGGT	TAAGAAAAAA	AGCAACAGCC	AACAGAAATG	60
TGGTTATCCT	TCACCTACCT	AAAAAGGGAG	ATGATGTGAA	ACCAAGAAC	AGATGCCGAG	120
TAGCAGGATG	GGGGAGATT	GGCAATAAGT	CAGCTCCCTC	TGAAACTCTG	AGAGAAGTCA	180
ACATCACTGT	CATAGACAGA	AAAATCTGCA	ATGATGAAAA	ACACTATAAT	TTTCATCCTG	240
TAATTGGTCT	AAACATGATT	TGGGCAGGGG	ACCTCCCCGG	CGGAAAGGAC	TCCTGCAATG	300
GGGATTCTGG	CAGCCCTCTC	CTATGTGATT	GGTATTGGG	MGCATCACC	TCCCTTTT	357

FIG. 2

10	20	30	40	50	60	
TTAGCGCCAT	TGCCATAGAG	AGACCTCAGC	CATCAATCAC	TAGCACATGA	TTGACAGACAA	60
GAGAATGGGA	CTTTGGGCTT	TGGCAATTCT	GACACTTCCC	ATGTATTGAA	CAGTTACGGAA	120
GGGCAGTAAA	TCGTCCCTGGG	GTCTGGAAA	TGAGGCTTTA	ATTGAGAT	GCCCCCAAG	180
AGGACGCTCG	ACTTATCCTG	TGGAATGGTA	TTACTCAGAT	ACAAATGAAA	GTATTCCCTAC	240
CCCCCCCC	AAAAAA					255

FIG. 4A

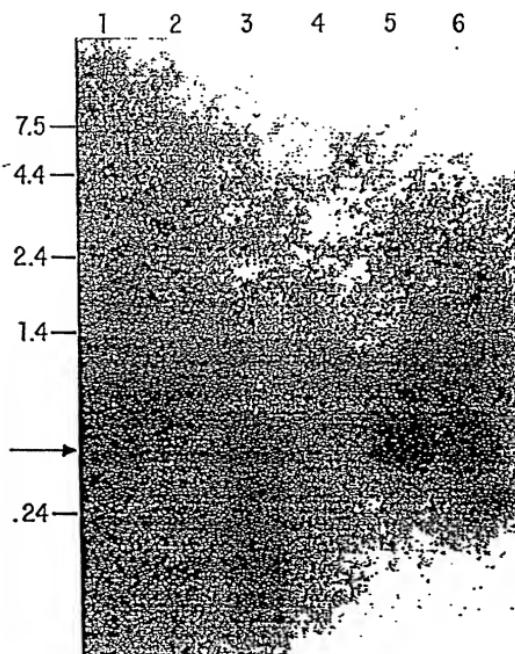


FIG. 3

10004633-120401

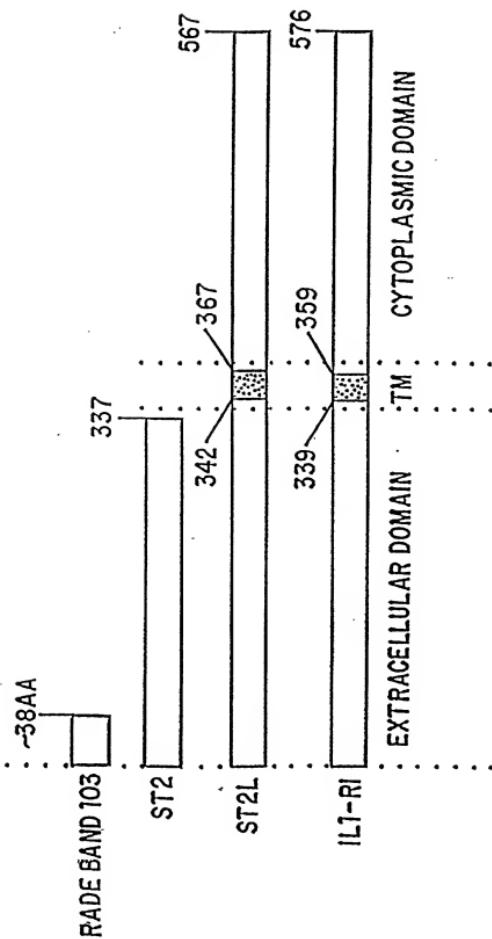


FIG. 4B

1 atgattgaca gacagagaat gggacttgg gcitggcaa ttcgacact tcccatgtat  
 61 ttgacagta cgaggccag taaatcgcc tgggtgtgg aaaatgggc tttaattgtg  
 121 agatcccccc aaagaggacg ctcgacttat ctgtggat ggttactc agatacaat  
 181 gaaagtattc ctactcaaaa aagaatccgg acitgtgtc caagagatcg tctgaagtt  
 241 ctaccagcca gactcgaaga ctctgggtt atgttgttgc ttatcagaag ccccaacttg  
 301 aataaagctg gatacttggaa tgccaccata cataaaaagc cgccaaactg caataatcc  
 361 gattatgttgc tgactcgaa agtactggaa tcagataaaa atttcagaat aagctgtcca  
 421 acaattgacc tgataatttgc acagccactt gtcagttgtt ttaagaactg caaagctct  
 481 caagggccaa ggttcaggcc acacagggtc tactgttca ttgacaacgt gactcatgt  
 541 gatgaagggtg actacacttgc tcaattcaca cagcgggaga atggaaacaa ctacatgt  
 601 acggccacca gatcaattcacttgc aaggctt tcatgttcc agtaatttaca  
 661 aatccctcat acaaccacac aatggaaatg gaaatggaa aaccggccaa tattggctt  
 721 tcaactgttgc ttggccaaagg ctctcacttc ttggctgtat tccctgtggca gattaacaaa  
 781 acagttgttgc gaaatttgg tgaagcaaga attcaagaag aggaaggctg aaatgaaat  
 841 tccagcaatg acatggatgtttaacttca ttgtttaaggaa taactgggttgc gacagaaaag  
 901 gactgttcc ttggaaatgtc ctgttggcc cttttttttt atggcatgtt aaggccaccc  
 961 ataaggctgaa gaaatggaaacca accaaggtaag gagtttttttcc cacatgtc t

FIG. 4C

TOPHOST-ECLAT-1000

MIDRQRMLWALAILTLPMLTVTEGSKSSWGLENEALIVRCPQRGRSTYPVEWYYS  
 TNESIPTQKRNRIFVSRDRLKFLPARVEDSGIYACVIRSPNLNKTGYLN  
 VTIHKPPSCNIP  
 DYLMLYSTVRGSDKNFKITCPTIDLYNWTAPVQWFKNCKALQEPRFR  
 AHSYLFIDNVTH  
 DDEGDYTCQFTHAENGNTNYIVTATRSFTVEEKGFSMFPVITNP  
 PYNHTMEVEIGKPASIA  
 CSACFGKGSHFLADVLWQINKTVVGNFGEARIQEEEGRNESS  
 SNDMDCLTSVLRITGVT  
 EKDLSEYDCLALNLHGMIRHTLRRKQPSKECPHIA

FIG. 4D

ATGATTGACA	GACAGAGAAT	GGGACTTTGG	GCTTTGGCAA	TTCTGACACT	TCCCATGTAT	60
TTGACAGTTA	CGGAGGGCAG	TAATCTGCC	TGGGGTCTGG	AAAATGAGGC	TTTAATTGTC	120
AGATCCCCC	AAAGGAGACG	CTCGACTTAT	CTCTGGAAT	GGTATTACTC	AGATACAAT	180
GAAAGTATTC	CTACTCAAA	AAAAGATCGG	ATCTTGTCT	CAAGAGATCG	TCTGAAGTT	240
CTACCCAGCA	GACTGGAAAG	CTCTGGGATT	TATGCTTGTG	TTATCAGAAAG	CCCCAACCTG	300
AATAAGACTG	GATACTGAA	TGTCACCCATA	CATAAAAAGC	CGCCAAGCTG	CAATATCCT	360
GATTATTTGA	TGACTCTGAC	AGTACCTGGA	TCAGATAAAA	ATTCAGAGAT	AACGTGTCCA	420
ACAATTGACC	TGTATAATTG	GACAGCACCT	GTCAGTGTG	TTAAGAACCTG	CAAAGCTCTC	480
CAAGAGCCAA	GGITTCAGGGC	ACACAGGTCC	TACTTGTCCA	TTGACAACCTG	GACTCATGAT	540
GATGAAGGTG	ACTACACTTC	TCAATTCAAC	ACGGGGAGAA	ATGGAACCCAA	CTACATCGTG	600
ACGCCACCA	GATCATTCAC	AGTGAAGAA	AAAGGCTTT	CTATGTTTC	AGTAATTACA	660
AATCCTCCAT	AAACACCAAC	AAATGGAAGT	AAAATGGAA	AACCGACGAA	TATTGCCCTGT	720
TCAGCTTGTG	TTGCGAAGG	CTCTCACTTC	TTGGCTGTAG	TCCTGTGCCA	GATTAACAAA	780
ACAGTAGTTG	GAATTTGG	TGAAGCAAGA	ATTCAAGAG	AGGAAGGTG	AAATGAAAGT	840
TCCAGCAATG	ACATGGATG	TTAAACCTCA	GTGTTAAGGA	TAACCTGGTGT	GACAGAAAAG	900
GACCTGCCCC	TGGAATATGA	CTGTCCTGGCC	CTGAACCTTC	ATGGCATGAT	AAGGCACACC	960
ATAAGGCTGA	GAAGGAACAA	ACCAATGTG	CACCGAAGCA	TCTACTACAT	AGTTGCTGGA	1020
TGTAGTTAT	TGCTAATGTT	TATCAATGTC	TTGGTGATAG	CTTTAAAAGT	GTTCCTGGATT	1080
GAGGGTGTCT	TGTTCTGGAG	AGATATAGTG	ACACCTTACA	AAACCCGGAA	CGATGGCAAG	1140
CTCTACAGTG	CGTACATCTC	TTACCCCTCG	GTCTTCCGG	CGAGGCGGCC	GGGAACCCAC	1200
TCTGTGGAGT	ACTTTGTCA	CCACACTCTG	CCCGACGTTG	TTGAAAATAA	ATGTCGGTAC	1260
AAATTGTGCA	TTTATGGGAG	AGACCTGTTA	CTTGGGCAAG	ATGCAGCCAC	CGTGGTGGAA	1320
AGCAGTATCC	AGAAATACGAG	AAAGACAGGTG	TTTGTCTGG	CCCCCTCACAT	GATGCACACG	1380
AAGGAATTG	CCTACGAGCA	GGGAGATTGCT	CTGCACAGGG	CCCTCATCCA	GAACAACCTCC	1440
AAGGTGATTC	TTATTGAAAT	GGAGCCCTCTG	GGTGAGGCAA	GCCGACTACA	GGTTGGGGAC	1500
CTGCAAGATT	CTCTCCAGCA	TCTGTGAAAT	ATTGAGGGGA	CCATCAAGTG	GAGGGAAAGAT	1560
CATGTGGCCC	ACAAGCAGTC	TCTAAGTTCC	AAATTCCTGGA	AGCATGTGAG	GTACCAAATG	1620
CCAGTGGCCAG	AAAGAGCCTC	CAAGACGGCA	TCTGTGCGG	TCCTCGTGA	TGGCAAGGCA	1680
TGCTTAGACC	TGAAACACTT	TTGA				1704

FIG. 4E

MIDRQRMGLWALAILTLPMLTVTEGSKSSWGLENEALIVRCPQRGRSTYPVEWYYSD  
TNESIPTQKRNRIFVSRDRLKFLPARVEDSGIYACVIRSPNLNKTGYLNVTIHKKPPSCNIP  
DYLMYSTVRGSDKNFKITCPTIDLWNWTAPVQWFKNCKALQEPRFRAHRSYLFIDNVTH  
DDEGDYTCQFTHAENGNTYIVTAtrsFTVEEKGFSMPVITNPPYNHTMEVEIGKPASIA  
CSACFGKGSHFLADVLWQINKTVVGNFGEARIQEEEGRNESSNDMDCLTSVLRITGVT  
EKDLSLEYDCLALNLHGMIRHTIRLRRKQPIDHRSIYYIVAGCSLLLMFINVLVIVLKVFVW  
IEVALFWRDIVTPYKTRNDGKLYDAYIIYPRVFRGSAAGTHSVEYFVHITLPDVLENKC  
GYKLCIYGRDLLPGQDAATVVESSIQNSRRQVFVLAPHMMHSKEFAYEQEIALHSALIQ  
NNSKVILJEMEPLGEASRLQVGDQLQDSLQHLVVKIQGTIKWREDHVADKQSLSSKFWKH  
RYQMPVPERASKTASVAAPLSGKACLDLKHF

FIG. 4F

1 atctcaacaa cgaggtacca atacttgtc ttgattgata aacagaatgg gggtttggat  
 61 cttagcaatt ctcaacatt tcatgttc cacagcagca aagtttagta aacaatcatg  
 121 gggctgaa aatgaggctt taatgttaag atgicctaga caaggaaaac ctatgttac  
 181 ctgttgttgc tattactca aacacaacaa aagttaifcc acfcaggaaa gaaaatgttgc  
 241 gttgcctca ggccaaacttc tgaaggttct accagctgaa gtgttgttgc ttttgttgc  
 301 tacctgttatt gtcaagaatgc ccacatcaa taggactgg tatttgtatc tcaacatata  
 361 taaaacaaacaa tcagatgtca atgttccaga ttttgtatc ttttgtatc ttttgtatc  
 421 agaaaaaaat tccaaatattt attttgttac catggccct tacaactgg cagcacctt  
 481 tgatgtttt aagaatgtt aggtctca aggatcaagg tacaggccgc acaatgtt  
 541 ttttgttattt gataatgttga tgacttgaggc cgcaggatg tacaccgtt aatttgtata  
 601 caatgaaaat ggagccaaat atatgttgc ggcgaccagg tccitcacgg tcaaggatg  
 661 gcaaggctt tcttgttgc catgttgc acggccctgc caaaatgaaa taaaggaaat  
 721 gggaaatggg aaaaacggcaaa ctcaacttg ctgttgtt ttttgttgc gcaactgtt  
 781 ctggctgcc gtcctgtgc agcttgc aacaaaattt acagacttgc gttgaaccagg  
 841 aatctcaacaa gaggaaaggc aaaaatcaag tttcagcaat gggcttgttgc ttttgttgc  
 901 gttttttaaga atatgttgc tgaaggaga ggattttatg ctgcgttgc acgttgttgc  
 961 ctctgttgc atctgttgc gaaggcacac ctgttgc aatggacta atgttggaaa atccaaatgaa  
 1021 ggatgttttgc tggacttgc atacacttgc cttttgttgc caatgttgc cagaatggag  
 1081 ttttgttccca agatgttgc ctgttgttgc ttttgttgc ttttgttgc ttttgttgc  
 1141 ctcttgttgc atgttgttgc ctgttgttgc ttttgttgc ttttgttgc ttttgttgc  
 1201 ttttgttgc ttttgttgc ttttgttgc ttttgttgc ttttgttgc ttttgttgc  
 1261 cactcacttgc ctcttgttgc catcttgttgc ttttgttgc ttttgttgc ttttgttgc  
 1321 ttttgttgc ttttgttgc ttttgttgc ttttgttgc ttttgttgc ttttgttgc

FIG. 4G

TOP SECRET - EYES ONLY

MGFWILAILTILMYSTAAKFSKQSWGLENEALIVRCPRQGKPSYTVWDWYYSQTNKSIPT  
 QERNR VFASGQLLKFLPAEVADSGIYTCIVRSPTFNRTGYANVTIYKKQSDCNVPDYL  
 M YSTVSGEKNNSKIYCTIDLYNWTAPLEWFKNQCALQGSRYRAHKSLFLVIDNVMTEDAG  
 DYTCKFIHNENGANYSVTATRSFTVKDEQGFSLFPVIGAPAQNEIKEVEIGKNNALTC  
 CFGKGTQFLAAVLWQLNGTKITDFGEPRIQQEEGQNQSFNSNGLACLDMVLRADVKEED  
 LLQYDCLALNLHGLRRHTVRLSRKNPSKECF

FIG. 4H

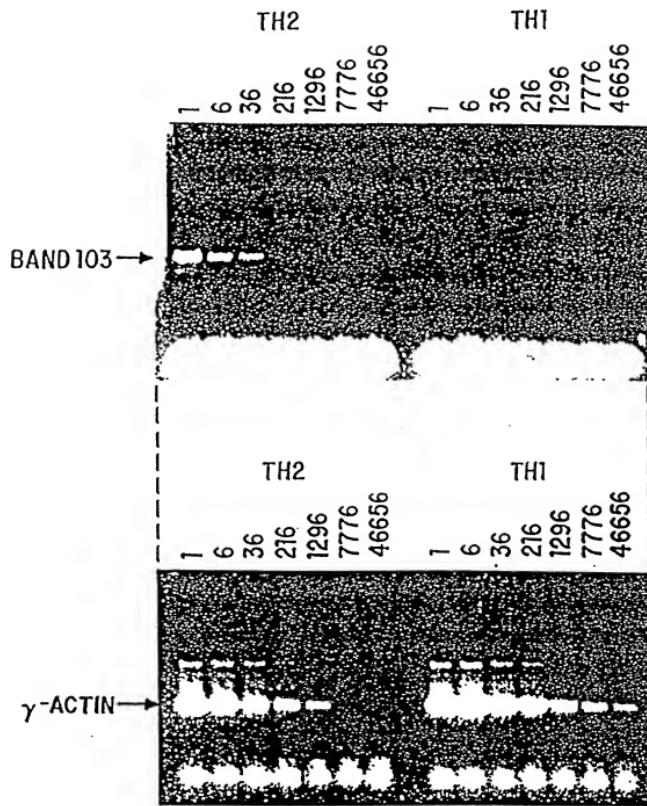


FIG. 5

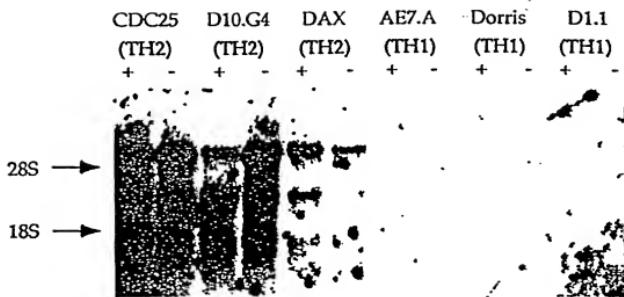


FIG. 6

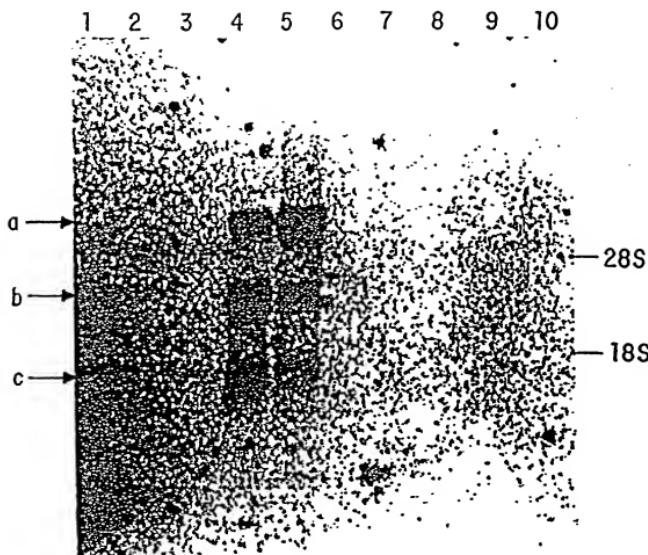


FIG. 7

1000014533-127

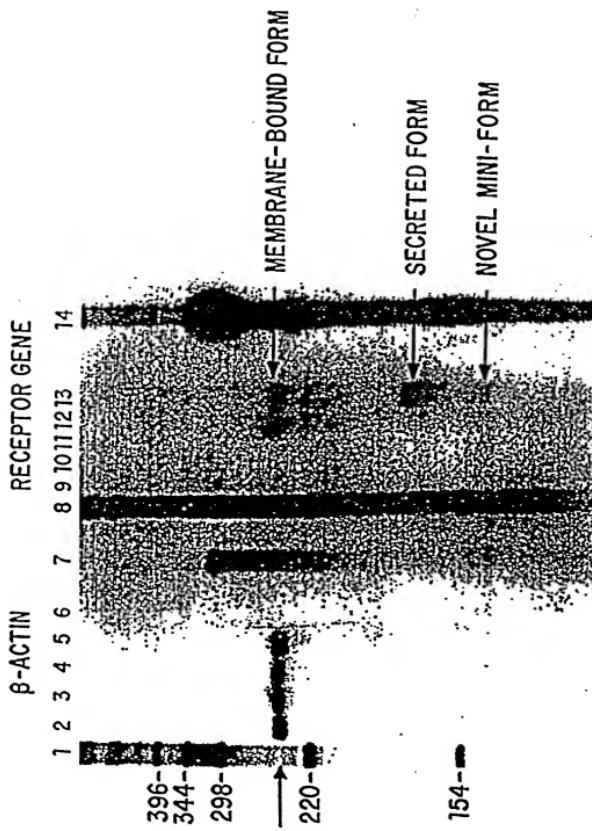


FIG. 8

CC	2	
GGGTGACCCAGGCTCGAGGCTCTCACTCAAGAGGATCCTCAAGAACAGGGAAACATGACACTTTGAAG	81	
AACTCCAAACGGCGTGAAATAAAACAGAGCATTCCATTCTGACCGACCAATTCTCTGAAGTTCAAAA	160	
'GGGAAGGAAAGGGGGTACCGGTTACGAAAGCTAAATCCCATGCTTGTGACATGAAGACTTCTGATGCTTAAATC	239	
TCATTAACCTGCTTAAGTCACCTCCAGGAGCTGGATCCAACTCTAGCAGTAAATGCTGTGAAAGAAAAAAA	318	
AATCAGTCTACAAACCAACTCTCTAAATGCTGGTGAATCTCATGAAACATCAAAACCCAAAGGAAACCCCTAAAGAGAAG	397	
AATTCTAATAAAAGAATTTCATGAAAACCTTACAAGGCAAGGTCCCTTCCCTGTCAGCGCTAAAGTGATGT	476	
M A M N S M C I E E Q R H L E 15		
AACTGCACTGTGAAAGACC ATG GGG ATG AAC AGC ATG TGC ATT GAA GAG CAG CAC CTC GAA	540	
H Y L F P V V Y I I V F I V S V P A N I 35		
CAC TAT TTG TTC CCG GTG GTC TAC ATA ATT GTG TTT ATA GTC AGC GTC CCA GCC AAC ATC	600	
G S L C V S F L Q A K K E N E L G I Y L 55		
GGA TCT TTA TGC GTA TCC TTT CTG CAA GCG AAG AAG AAT GAG CTA GGG ATT TAC CTC	660	
F S L S L S D L L Y A L T L P L W I N Y 75		
TTG AGT CTG TCC CTG TCA GAC CTG CTG TAT GGG CTG ACT CTG CCC CTC TGG ATC AAT TAC	720	

FIG. 9A

TOHORI "E" 5/10/00

T	W	N	K	D	N	W	T	F	S	P	T	L	C	K	G	S	V	F	F	95
ACT	TGG	AAT	AAA	GAC	AAC	TGG	ACT	TTC	TCT	CCC	ACC	TGG	TGC	AAA	GGG	AGC	GTT	TTC	TTC	780
T	Y	M	N	F	Y	S	S	T	A	F	L	T	C	I	A	L	D	R	Y	115
ACC	TAC	ATG	AAC	TTT	TAC	AGC	AGC	AGG	TTC	TTC	CTC	ACT	TGG	ATT	GCC	CTG	GAC	GGC	TAT	840
L	A	V	V	V	P	L	K	F	S	F	L	R	T	R	F	A	F	I	135	
TTA	GGA	GTC	GTC	TAC	CCT	CTG	AGG	TTT	TCC	TTC	CTA	AGA	AGA	AGA	TTC	GGG	TTT	ATT	900	
T	S	L	S	I	W	I	L	E	S	F	F	N	S	M	L	L	W	K	D	155
ACC	AGC	CTC	TCC	ATC	TGG	ATA	TTA	GAG	TCC	TTT	AAC	TCT	ATG	CTT	CTG	TGG	AAA	GAT	960	
E	T	S	V	E	Y	C	D	S	D	K	S	N	F	T	L	C	Y	D	K	175
GAA	AGG	AGT	GTT	GAA	TAT	TGT	GAC	TGG	GAC	AAA	TCT	AAT	TTC	ACT	CTC	TGC	TAT	GAC	AAA	1020
Y	P	L	E	K	W	Q	I	N	L	N	L	F	R	T	C	M	G	Y	A	195
TAC	CCT	CTG	GAG	AAA	TGG	CAG	ATA	AAC	CTC	AAC	CTG	TTT	CGG	AGC	TGC	ATG	GGG	TAC	GCA	1080
I	P	L	I	T	I	M	I	C	N	H	K	V	Y	R	A	V	R	H	N	215
ATA	CCC	TGG	ATC	ACC	ATC	ATG	ATC	TGG	AAC	CAT	AAA	GTC	TAC	CGA	GCT	GTG	CGG	CAC	AAC	1140
CAA	GCC	AGG	GAA	AAC	AGC	GAG	AAG	AGA	AGG	ATC	ATA	AAG	TGG	CTT	GCT	AGC	ATC	ACG	TIG	1200
T	F	V	L	C	F	T	P	F	H	V	M	V	L	I	R	C	V	L	E	255
ACT	TTC	GTC	CTA	TGC	TTT	ACC	CCC	TTC	CAC	GTC	ATG	GTC	CTC	ATC	GGC	TGC	GTC	TTA	GAG	1260

FIG. 9B

R D M N V N D K S G W Q T F T V Y R V T 275  
 CGC GAC ATG AAC GTC AAT GAC AAG TCT GGA TGG CAG ACG TTT ACG GTG TAC AGA GTC ACA 1320  
 V A L T S L N C V A D P I L Y C F V T E 295  
 GTA GCC CTG ACG AGT CTA AAC TGT GTT GCC GAT CCC ATT CTG TAC TGT TTT GTG ACT GAG 1380  
 T G R A D M W N I L K L C T R K H N R H 315  
 ACG GGG AGA GCT GAT ATG TGG AAC ATA TTA AAA TTG TGT ACT AGG AAA CAC AAT AGA CAC 1440  
 Q G K K R D I L S V S T R D A V E L E I 335  
 CAA GGG AAA AAA AGG GAC ATA CTT TCT GTG TCC ACA AGA GAT GCT GTA GAA TTA GAG ATT 1500  
 I D \* 338  
 ATA GAC TAA GAGGTGGAGGAGTTAAGTTACATGGTATTAAATGAAACCTACATTGGAAAGAGAAATCTGG 1576  
 CATACTAGAACCCAGTGGAAATACTTTGAGGTACATTGTGACTCCTATGTTGGCTTTATTAAAGTAAGGTATAGAAA 1655  
 TGTATTCTGTATGTTATTCTAATGACTAGGACATCTTGTGTTAGTACCAATTCTCTCTATGTTATAACCCC 1734  
 TAAGAAGCAAGGGAGACTGTTGTCCTTAAATCAGTGECCATTCTGACTACTATGACTTTTGTGTTGTTCTGC 1813  
 TTGGGGTTTCACTGCTGCCTGCACTGTCCTCTCTGATAAGTCTGCTTCACAAATGTAAGGACTAAATACCCC 1892

FIG. 9C

## FIG. 9D

2055

AGGGC

TGAAGTTAACATACCTTGGGATCTAGTCA CGAGTCACATAAAGTAAATGGAAA 2050

TCCGATCACATCCATTATCAAGGATTGAAAGCCACTCCATGTACTGGTTATAAAGAAATGTTCTCATGAACTTCA 1971

TOHOZT" ECHTODOT

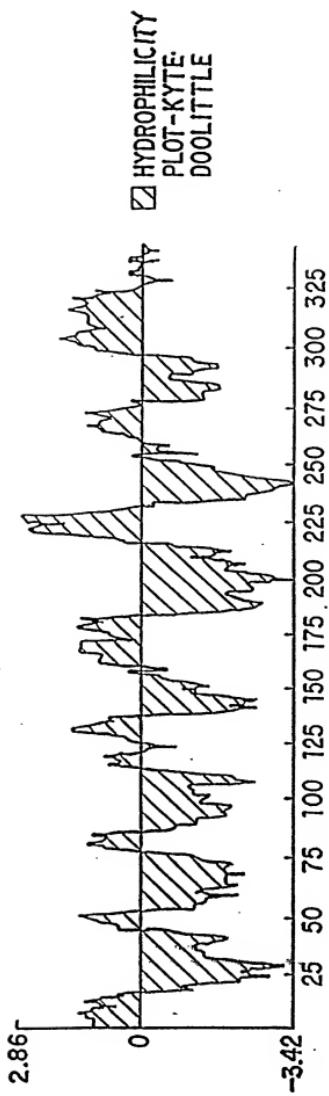


FIG. 10A

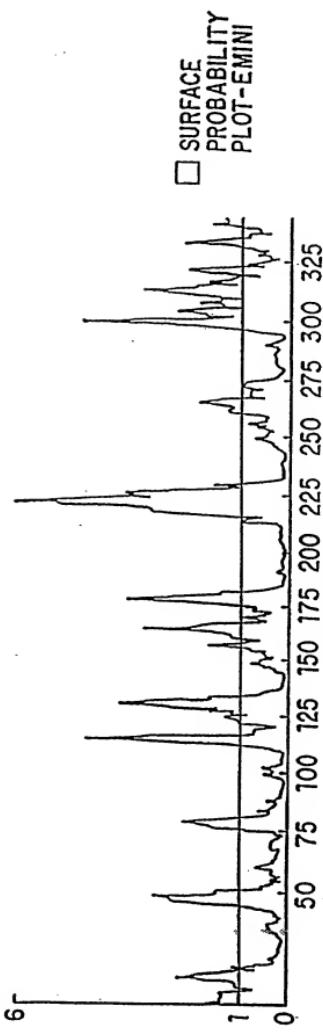


FIG. 10B

TOP-027-229007

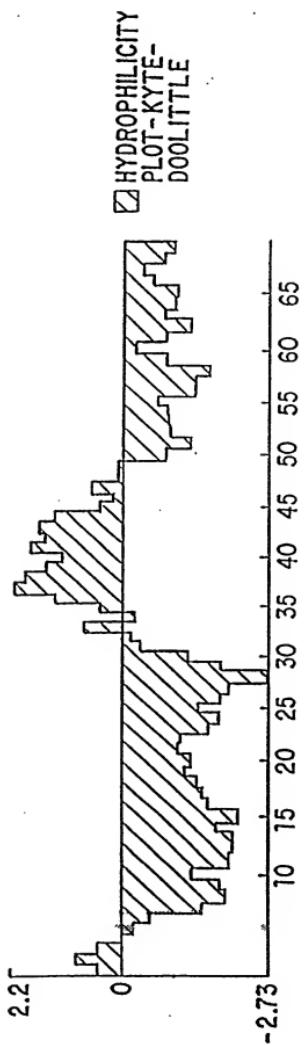


FIG. 10C

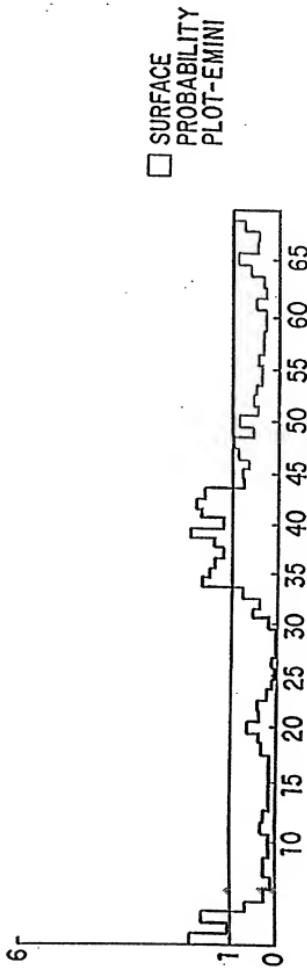


FIG. 10D

TOHOT-EGGHOOT

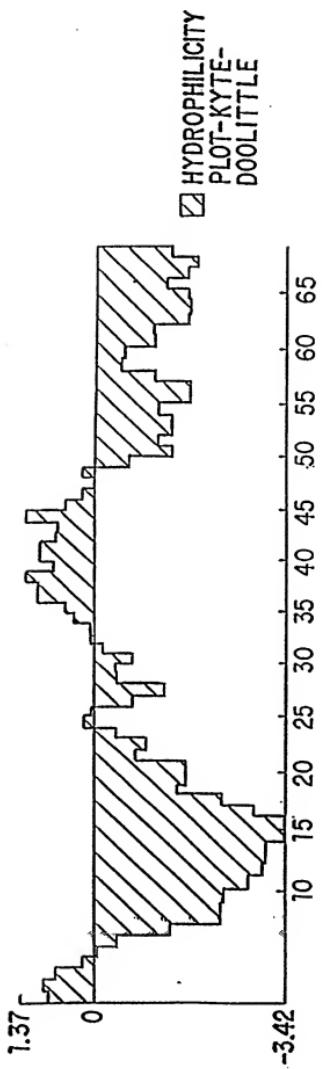


FIG. 10E

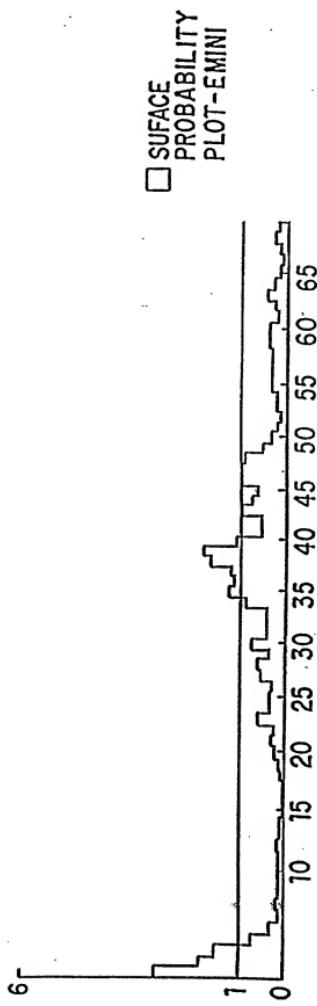


FIG. 10F

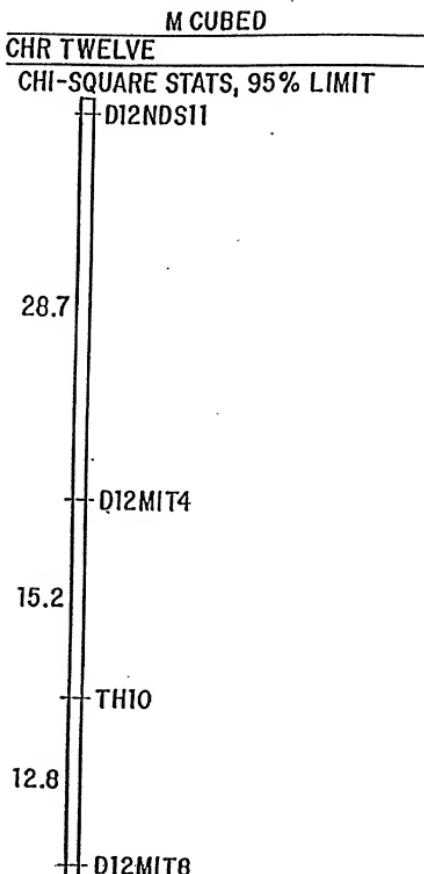


FIG. 11

CGCCAGTGTGCTGGAATTGGCTAGAGCATTCTTCA  
 AACCAAGGTTAACACACACTTACTAAAAGCAATGCTG  
 TTAGAGGAGAAGGGCTGGGAGACTGGCCATTGAAAC  
 ANAAGCAAGGCACCTCCAGGNINCAGCAAGTGGATTCCC  
 ATTTCCTGCTAGGGGCGGGTCAACTGAGACTGCACTC  
 CAGTCAGCGGGAGGAATCACCTGCATTAATGCTTGTCT  
 CTGCAGAGCTAGTGTGCCTTCACTCTGGGTACACTTGG  
 GTGTCAACATTTCAAAATGATGACCTAAGGGCTCTCAT  
 AGTTGGTATAACTATGGNAGGACAGAAGMCACTGGCT  
 GTATTGTCTTTCTTCAGCACTAGTGTCTGGCCCTT  
 AACATTAACGGGTTCCATCATCCTCCACCCAGGAGAT  
 AGATTGTAGACAGGTCTTCCCCTCMCT

FIG. 12

TOP SECRET - CRYPTOGRAPHIC

TTNNGGGACAGGGTTCTGTATCTCTGGCTGTCC  
 TGGACTNACTCTGTAGACCAGGTTGGCCTCGANCTCAG  
 AAATCTACCTGCCTCTCCCTCCANAGTGCTGGGATTAAN  
 GGTGTATGCCACCAATNCGGGCTTAATATAATTNNAA  
 ACAACTTCATTGATGANATATTGACACTACCCCTGGAA  
 ATAAGAGTNCCCGAATGANGTACAGGNTCANGGAATC  
 ATTAA

FIG. 14

CTTAGCAGGTGGAGTTGCAGCAGGAAGCCTGGTAGCCAC  
 ACTCCAATCAGCAGGGCTTGGACTCTCCACATCAAC  
 AAATGCCATCCTAGGGCTGCTGGGGACTGTGGAGCC  
 TTGCTCTGAGCTTGGAGATGACACTCTATCAGCTCA  
 CTCAAAGCCTGTACAGACTACGCAGGAGATGAGTTCCA  
 AAAGGCACCTTCAGAACCTCA

FIG. 15

10      TTTTTTTT TGGGAGGG CTAGCACTG AATTACAGTT TCACTGGGTT TTAGAGAAGT AATAACTGCA 70  
AAATTATT TACACACACA CACACACACA CAGGGCATTT TACCTGTGTA AGTGCAGTTT AATCANCCTC 140  
ATTACCTAT GACCTTGGTT GGAAATGCTCT TCAAGCTT AAAATTAAA TAAAATTAAA AAGATGGTTT 210  
TCCATCTCAT AAAATCCCTT TGGGAAAGG AAGACTCTT CTTGGGGGT CTTTTAGAG GGAAACAGGAG 280  
GTAACGTAA ATTATTATA CATTCTATA ACCATGTAT GCACCACTATA AAATACTGTA CTGGGGAGC 350  
AAACACTGTT TGGGGGGTT CTCTCTTACCA AGAAGGAAACA GGGGGCTTT CAATGGCTGT GGGC 414

FIG. 13.

TINHOTER "EESTIHOOT"

rem16190f	-----F-----	-----FVFLA-----	-----FVFLA-----	BAND 161
g1/218574/	MRQAVSFLCYLLFTCSGVAEGRKKCSESSDGSF-	MRKALTRMAGGGGLAVAGLP--	MRKALTRMAGGGGLAVAGLP--	CHIMP GENE
g1/32698/g	MRQAVSFLCYLLFTCSGVAEGRKKCSESSDGSF-	MRKALTRMAGGGGLAVAGLP--	MRKALTRMAGGGGLAVAGLP--	HUMAN 6-16
g1/32701/g	-----V-----	-----V-----	-----V-----	HUMAN 6-16
g1/32702/g	-----GKKKCSESSDGSF-	-----GKKKCSESSDGSF-	-----GKKKCSESSDGSF-	HUMAN 6-16
g1/35184/g	MEASL-----	TSAAVTSVAKVVRVASSGAAVLPLARIAATVIGGWVAAAPRN	TSAAVTSVAKVVRVASSGAAVLPLARIAATVIGGWVAAAPRN	HUMAN P27

rem16190f	-----F-----	-----GGVAAGSLVATLQSAGVILGLS-----	-----GGVAAGSLVATLQSAGVILGLS-----	BAND 161
g1/218574/	-----	-ALGFTGAGTAANVAAASLM-----	-ALGFTGAGTAANVAAASLM-----	CHIMP GENE
g1/32698/g	-----	SATLNGGVPAGGLVATLQS-----	SATLNGGVPAGGLVATLQS-----	HUMAN 6-16
g1/32701/g	-----	SATLNGGVPAGGLVATLQS-----	SATLNGGVPAGGLVATLQS-----	HUMAN 6-16
g1/32702/g	-----	SATLNGGVPAGGLVATLQS-----	SATLNGGVPAGGLVATLQS-----	HUMAN 6-16
g1/35184/g	-----	LSANGFTTAAGIASSIIAARMMSAAA-----	LSANGFTTAAGIASSIIAARMMSAAA-----	HUMAN P27

rem16190f	-----G-----	-----GALLEPCSELRR-----	-----GALLEPCSELRR-----	BAND 161
g1/218574/	-----	GALMRYATHKYLSEEDEE	GALMRYATHKYLSEEDEE	CHIMP GENE
g1/32698/g	-----	GALMRYATHKYLSEEDEE	GALMRYATHKYLSEEDEE	HUMAN 6-16
g1/32701/g	-----	GALMRYATHKYLSEEDEE	GALMRYATHKYLSEEDEE	HUMAN 6-16
g1/32702/g	-----	GALMRYATHKYLSEEDEE	GALMRYATHKYLSEEDEE	HUMAN 6-16
g1/35184/g	-----	GSATAAVIARY	GSATAAVIARY	HUMAN P27

FIG. 16

TOPOTEST™ ECG PHOTOCOPY

NGTCACCCACGGGTCCGGATTCCCTCCAAAGTACTC ATG TTT TCA GGT CTT ACC CTC 60  
 N C V L L L Q L L A R S L E D G Y K 26  
 AAC TGT GTC CTC CTG CTG CAA CTA CTA CTT GCA AGG TCA TTG GAA GAT GGT TAT AAG 120  
 V E V G K N A Y L P C S Y T L P T S G T 46  
 GTT GAG GTT GGT AAA AAT GCC TAT CTG CCC TGC AGT TAC CTA CCT ACA TCT GGG ACA 180  
 L V P M C W G K G F C P W S Q C T N E L 66  
 CTT GTG CCT ATG TGC TGG GGC AAG GGA TTC TGT CCT TGG TCA CAG TGT ACC AAT GAG TTG 240  
 L R T D E R N V T Y Q K S S R Y Q L K G 86  
 CTC AGA ACT GAT GAA AGA AAT GTG ACA TAT CAG AAA TCC AGG AGA TAC CAG CTA AAG GGC 300  
 D L N K G D V S L I I K N V T L D D H G 106  
 GAT CTC AAC AAA GGA GAT GTG TCT CTG ATC ATA AAG AAT GTG ACT CTG GAT GAC CAT GGG 360  
 T Y C C R I Q F P G L M N D K K L E L K 126  
 ACC TAC TGC TGC AGG ATA CAG TTC CCT GGT CTT ATG AAT GAT AAA AAA TTA GAA CTG AAA 420  
 L D I K A A K V T P A Q T A H G D S T T 146  
 TTA GAC ATC AAA GCA GCC AAG GTC ACT CCA GCT CAG ACT GCC CAT GGG GAC TCT ACT ACA 480  
 A S P R T L T E R N G S E T Q T L V T 166  
 GCT TGT CCA AGA ACC CTA ACC ACC GAG AGA AAT GGT TCA GAG ACA CAG ACA CTC GTG ACC 540

FIG. 17A

L H N N G T K I S T W A D E I K D S G 186  
 CTC CAT AAT AAC AAT GGA ACA AAA ATT TCC ACA TGG GCT GAT GAA ATT AAG GAC TCT GGA 600  
 GAA ACG ATC AGA ACT GCT ATC CAC ATT GGA GTG GGA GTC TCT GCT GGG TTG ACC CTG GCA 660  
 CTT ATC ATT GGT GTC TTA ATC CTT AAA TGG TAT TCC TGT AAG AAA AAG AAG TTA TCG AGT 720  
 L S L I T L A N L P P G G L A N A G A V 246  
 TTG AGC CTT ATT ACA CTG GCC AAC TTG CCT CCA GGA GGG TTG GCA AAT GCA GGA GCA GTC 780  
 R I R S E E N I Y T I E E N V Y E V E N 266  
 AGG ATT CGG TCT GAG GAA ATT ATC TAC ACC ATC GAG GAG AAC GTA TAT GAA GTG GAG AAT 840  
 S N E Y Y C Y V N S Q Q P S \* 280  
 TCA AAT GAG TAC TAC TGC TAC GTC AAC AGC CAG CAG CCA TCC TGA CGGCCCTGGACTGCCACT 903  
 TTAAAGGGCTGGCTTCATTTCTGACTTTGGATTTCCTTGTGGAAAATGATGTCACTTGGAAACCTCAT 982  
 TGGAGGGTTCTGACCAAGCCACTGAGAAAAGATTCCAGTTCTGGGGATAATTAACTCACAGGGATTGGACTGTA 1061  
 ACTCATGCTAATTGAAATGCTCATTTCATGCTGAGTTCAAGGATCTCCACTCCAGAGACTTCAATATG 1140  
 CGTGTGAAGGTCACCTCGTGCCTCATGAGATGGTTAGTGTGAGCTTGAAGACATAGAGGGTTGGATATA 1219

FIG. 17C

GGACAGTCCTACCAAAATTGATTCCAAAGCCGGTGGACCTCAGTTCATGGCTTACAGCTGCCCTGCCAGTGCCTT 2324  
GA<sup>t</sup>CTGTCTGCTCCATATAACAGAAATCAAATTAAATAGACCCGAGTGA<sup>t</sup>AAATTAAAGTGAAGCAGAAAGGTAG 2403  
CTTGTGTTCAAAAGATTTTGGATTGGGGAGAACACTGTGTACATCAGAGGACATCTGTTAGTGAAGCACCCAAACCTG 2482  
TGCTACCGTTTTCATGTATGATTGTTAGTTGCTTCTAGCTGTGGAGGTCTGGCTGGCTTCTAGGTG 2561  
GGTATGGAAGGGAGCCAATGATAACAAATCATTAGAGATAACAGCTCTCATGAGAAGGGAAAACTAATCTCAAAATGT 2640  
TTAAAGTAAATAAAACTGTACTGTGGCAAGTACTTTGAGCTATAAAAAAAAAAAAAAGGGGGGGCGC 2710

FIG. 17D

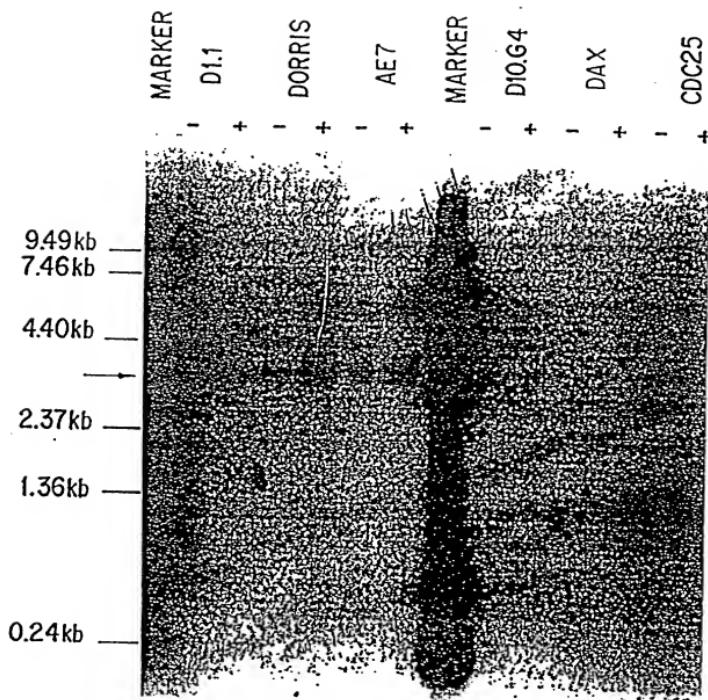


FIG. 18

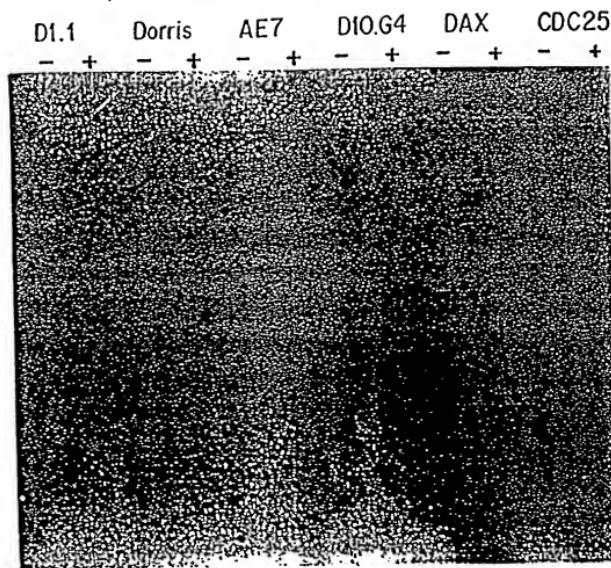


FIG. 19

7853-125

(SHEET 30 OF 47)

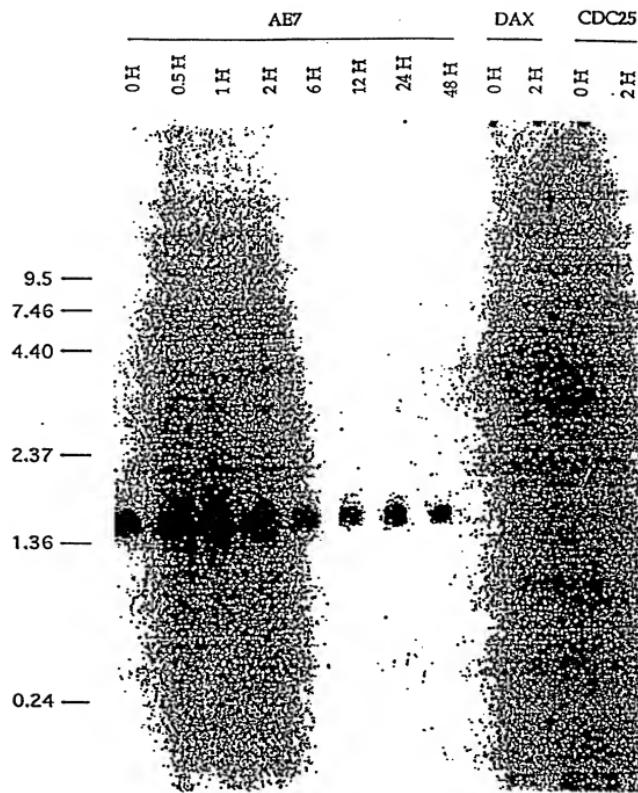


FIG. 20

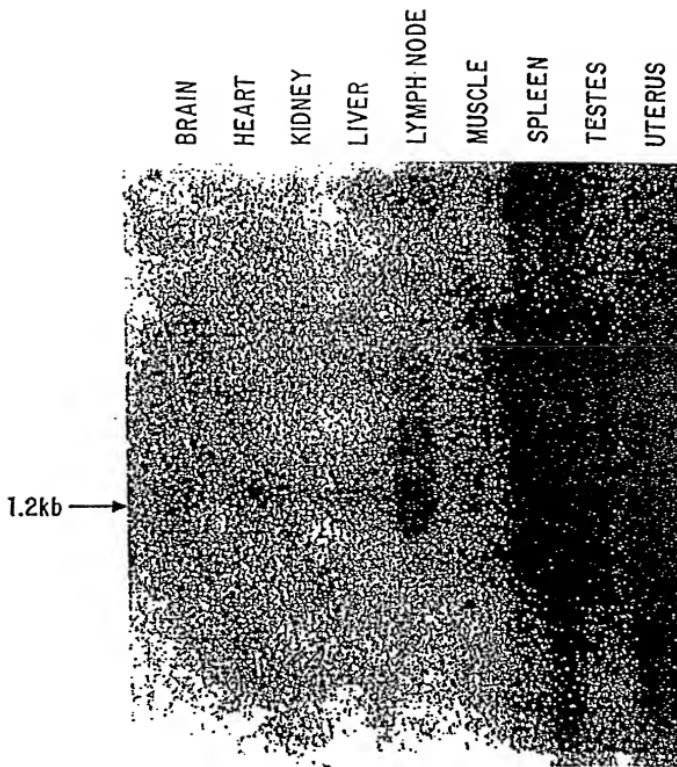


FIG. 21

TOPOTEST ECGHODOT

C	GGGTGACC	CACGGTCCG	ATG ACA	CTG ACT	GGC CAC	CTC TCC	TAC TTT	CTG GTC	CTG	L	V	L	13									
L	L	A	G	Q	G	L	S	D	S	L	T	K	D	A	G	P	R	P	33			
T	T	GGG	GGC	CAA	GGC	CTC	AGT	GAC	CTC	CTC	ACC	AAG	GAT	GCA	GGT	CCC	CGC	CCA	120			
L	E	L	K	E	V	F	K	L	F	Q	I	R	F	N	R	S	Y	W	N	53		
T	G	G	CTG	AAG	GAA	GTC	TTC	AAG	CTG	TTC	CAG	ATC	CGG	TTC	AAC	CGG	AGT	TAC	TGG	AAC	180	
P	A	E	Y	T	R	R	L	S	I	F	A	H	N	L	A	Q	A	Q	R	73		
C	CA	GCA	GAG	TAC	ACT	GGC	CGT	CTG	AGC	ATC	TTT	GCC	CAC	AAAT	CTG	GCT	CAG	GCT	CAA	AGG	240	
L	Q	Q	E	D	L	G	T	A	E	F	G	E	T	P	F	S	D	L	T	93		
C	T	A	G	CAA	GAA	GAC	TTG	GGT	ACA	GCT	GAG	TTT	GGA	GAG	ACT	CCA	TTC	AGT	GAC	CTC	ACA	300
E	E	F	F	G	Q	L	Y	G	Q	E	R	S	P	E	R	T	P	N	M	113		
G	G	G	G	TTT	GGC	CAG	TTA	TAC	GGG	CAG	GAG	AGG	TCA	CCA	GAA	AGG	ACC	CCC	AAC	ATG	360	
T	K	K	V	E	S	N	T	W	G	E	S	V	P	R	T	C	D	W	R	133		
A	CC	AAA	AAG	GTA	GAG	TCT	AAC	ACG	TGG	GGG	GAA	TCT	GTG	CCC	CGC	ACC	TGT	GAC	TGG	CGT	420	
K	A	N	I	I	S	S	V	K	N	Q	G	S	C	K	C	W	A	153				
A	AA	AA	AAC	ATC	ATC	TGG	TGG	GTC	AAG	AAC	CAG	GGG	AGC	TGC	AAA	TGC	TGG	GCC	480			
M	A	A	A	D	N	I	Q	A	L	W	R	I	K	H	Q	Q	F	V	D	173		
ATG	GCA	GCT	GCC	GAC	GAC	ATC	ATC	CAG	GCT	CTG	TGG	CGC	ATC	AAA	CAC	CAG	CAG	TTT	GTC	GAC	540	

FIG. 22A

TOHOTR SE9000T

V	S	V	Q	E	L	L	D	C	E	R	C	N	G	G	F	193					
GTG	TCT	GTG	CAG	GAG	CTG	GTG	GAC	TGC	GAA	GCG	TGT	GGG	AAT	GGT	GGC	TTC	600				
V	W	D	A	Y	L	T	V	L	N	N	S	G	L	A	S	E	K	D	Y	213	
GTG	TGG	GAC	GCA	TAT	CTA	ACT	GTG	CTG	CTC	AAAC	AGC	AGT	GGC	CTG	GCC	AGT	GAA	AAG	GAT	TAT	660
P	F	Q	G	D	R	K.	P	H	R	C	L	A	K	K	Y	K	K	V	A	233	
CCA	TTC	CAG	GGG	GAC	AGA	AGA	TCC	CTA	GGC	AAG	TAC	AAG	AAG	GTG	GCC	720					
W	I	Q	D	F	T	M	L	S	N	N	E	Q	A	I	A	H	Y	L	A	253	
TGG	ATC	CAG	GAT	TTC	ACC	ATG	TTG	TCC	AAAT	AAT	GAG	CAG	GCA	ATT	GCC	CAC	TAC	CTG	GCC	780	
V	H	G	P	I	T	V	T	I	N	M	K	L	Q	H	Y	Q	K	G	273		
GTG	CAT	GGA	CCT	ATC	ACC	GTG	ACC	ATC	AAAC	ATG	AAA	CTA	CTC	CAG	CAT	TAC	CAG	AAG	GGT	840	
V	I	K	A	T	P	S	S	C	D	P	R	Q	V	D	H	S	V	L	L	293	
GTC	ATC	AAG	GCT	ACA	CCC	AGC	TCC	TGT	GAC	CCT	CGG	CAA	GTG	GAC	CAC	TCT	GTC	TGG	CTG	900	
V	G	F	G	K	E	K	E	G	M	Q	T	G	T	V	L	S	H	S	R	313	
GTG	GGC	TTT	GGC	AAG	GAG	AAA	GAG	GGC	ATG	CAG	ACA	GGG	ACA	GTC	TTG	TCC	CAT	TCT	CGA	960	
K	R	H	S	S	P	Y	W.	I	L	K	N.	S	W	G	A	H	W	G	333		
AAA	CGT	CGC	CAC	TCC	TCC	CGA	TAC	TGG	ATC	CTG	AAG	AAC	TCC	TGG	GGG	GCT	CAC	TGG	GCC	1080	
E	K	G	Y	F	R	L	Y	R	G	N	N	T	C	G	V	T	K	Y	P	353	
GAG	AAG	GGT	TAC	TTC	AGG	CTG	TAT	CGG	GGG	AAA	ACC	ACC	TGT	GGG	GTC	ACC	AAG	TAT	CCC	1080	

FIG. 22B

F T A Q V D S P V K K A R T S C P P \* 371  
TTC ACA GCT CAA GTG GAC TCA CCA GTA AAG AAG GCA CGG ACC TCT TGT CCT TGT CCT CCC TGA AGG 1140  
CAAGAGYCAC TCTTCTGCTT CTCCACATG GCCACTGCCCTTGTCAGCC CTGCCAACAT CCTCTCTGTA 1210  
TGGCTTCTATA AACCAAGACT GCTCCGTGAA AAAAAAAA  
1257

FIG. 22C

	M	T	L	T	A	H	L	S	Y	F	L	V	L	13							
L	L	A	G	Q	G	L	S	D	S	L	T	K	D	A	G	P	R	P	33		
TG	TTA	GCG	GGC	CAA	GGC	CTC	ACT	GAC	TCC	CTC	CTC	ACC	AAG	GAT	GCA	GGT	CCC	GGC	CCA	120	
L	E	L	K	E	V	F	K	L	F	Q	I	R	F	N	R	S	Y	W	N	53	
CIG	GAG	CTG	AAG	GAA	GTC	TTC	ATG	CTG	TTC	CAG	ATC	CGG	TTC	AAC	CGG	AGT	TAC	TGG	AC	180	
P	A	(E)	Y	T	R	(R)	L	S	(I)	(F)	A	H	(N)	L	A	Q	(A)	Q	R	73	
CCA	CCA	GAG	TAC	ACT	CGC	CGT	CTG	AGC	ATC	TTC	GGC	AAAT	CTG	GCT	CAG	GCT	CAA	AGG	240		
Pre-Pro																					
L	(Q)	Q	E	D	L	G	T	A	E	F	G	E	T	P	F	S	D	L	T	93	
CTA	CAG	CAA	GAAG	GAAC	TTG	GGT	ACA	GCT	GAG	TTT	GGAG	GAG	ACT	CCA	TTG	AGT	GAC	CTC	ACA	300	
E	E	E	F	G	Q	L	Y	G	Q	E	R	S	P	E	R	T	P	N	M	113	
GAG	GAG	GAG	TTT	GGC	CAG	TTA	TAC	GGG	CAG	GAG	AGG	TCA	CCA	GAA	AGG	ACC	CCC	AAC	ATG	360	
T	K	K	V	E	S	N	T	W	G	E	S	V	P	R	T	C	D	W	R	133	
ACC	AAA	AAA	GAG	GTA	GAG	TCT	AAC	ACG	TGG	GGG	GAA	TCT	GTG	CCC	CCC	ACC	TGT	GAC	TGG	CGT	420
K	A	K	N	I	I	S	S	V	K	N	Q	G	S	C	K	C	C	W	A	153	
AAA	GCA	AAG	AAC	ATC	ATC	TGG	TGG	GTC	AAG	AAC	CAG	GGG	AGG	TGC	AAA	TGC	TGC	TGG	GCC	480	
M	A	A	A	D	N	I	Q	A	L	W	R	I	K	H	Q	F	V	D	173		
ATG	GCA	GCT	GCG	GAC	AAC	ATC	CAG	GCT	TGG	CGG	ATC	AAA	CAC	CAG	CAG	TTT	GTC	GAC	540		

FIG.23A

TOHOZT™ CERTIFICATE

MATURE	V	S	V	Q	E	L	L	D	C	E	R	C	G	C	N	G	C	N	G	F	193	
	GTC	TCT	GTC	CAG	CAG	CTG	CTG	GAC	TGC	GAA	CGC	TGT	GGA	AAU	GCT	TGC	AAU	GCT	GCC	TTC	600	
	V	W	D	A	Y	L	T	V	L	N	N	S	G	L	A	S	E	K	D	Y	213	
	GTG	TGG	GTC	GCA	TAT	CTA	ACT	GTC	CTG	CTG	AAC	AAC	AGT	GCC	AGT	GAA	AAG	GAT	TAT	660		
	P	F	Q	G	D	R	K	P	H	R	C	L	A	K	K	Y	K	V	A	233		
	CCA	TTC	CAG	GGG	GAC	GAC	AAG	CCT	CAC	AGA	TGC	CTA	GCC	AAG	AAG	TAC	AAG	AAG	GTC	GCC	720	
	W	W	I	Q	D	F	T	M	L	S	N	N	E	Q	A	I	A	H	Y	L	A	253
	TGG	ATC	CAG	GAT	TTC	ACC	ATG	TTC	ATG	TCC	AAU	ATG	GAG	CAG	GCA	ATT	GCC	CAC	TAC	CTG	GCC	780
	V	H	G	P	I	T	V	T	I	N	M	K	L	L	Q	H	Y	Q	K	G	273	
	GTG	CAT	GGA	CCT	ATC	ACC	GTC	ACC	ATC	AAC	ATG	AAA	CTA	CTC	CAG	CAT	TAC	CAG	AAG	GCT	840	
	V	I	K	A	T	P	S	S	C	D	P	R	Q	V	D	H	S	V	L	L	293	
	GTC	ATC	AAG	GCT	ACA	CCC	ACC	TCC	TGT	GAC	CCT	CGG	CAA	GTC	GAC	CAC	TCT	GTC	TTC	CTG	900	
	V	G	F	G	K	E	K	E	G	M	Q	T	G	T	V	L	S	H	S	R	313	
	GTG	GCC	TTT	GGC	AAG	GAG	AAA	GAG	GCC	ATG	CAG	ACA	GGG	ACA	GTC	TTC	TCC	CAT	TCT	CGA	960	
	K	R	R	H	S	S	P	P	Y	W	I	L	K	N	S	W	G	A	H	W	G	333
	AAA	CGT	GGC	GAC	TCC	TCC	CAA	TAC	TGG	ATC	CIG	AAG	AAC	TCC	TGG	GCA	GCT	CAC	TGG	GCC	1020	

FIG. 23B

TOHOST EEPHODOT

E	K	G	Y	F	R	L	Y	R	G	N	N	T	C	G	V	T	K	Y	P	353
GAG AAG GGT TAC TTC AGG CTG TAT CGG GGA AAC AAC ACC TGT GGA GTC ACC ACC AAG TAT CCC 1080																				
F	T	A	Q	V	D	S	P	V	K	K	A	R	T	S	C	P	P	*	371	
TTC AGA GCT CAA GTG GAC TCA CCA GTA ARG ARG GCA CGG ACC TCT TGT CCT CCC TGA AGG 1140																				
CAGCAGCAC TCTTCTGCTT CTCCACATC GGCACACTGCCT CTTGTCAGCC CTCACACAT CCTCTCTGTA 1210																				
TGCTCTATA ACCAAGACT GCTCGTAA AAAAAAAAAAAAAA																				
1257																				

FIG.23C



FIG. 24 (cont'd.)

上卷

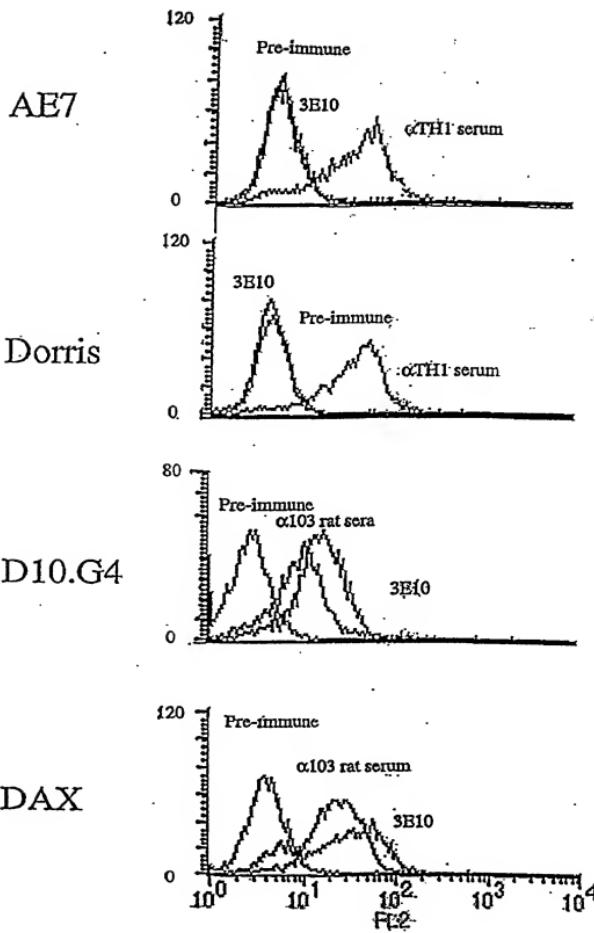


FIGURE 25

TOUCH "E" ELEGANT

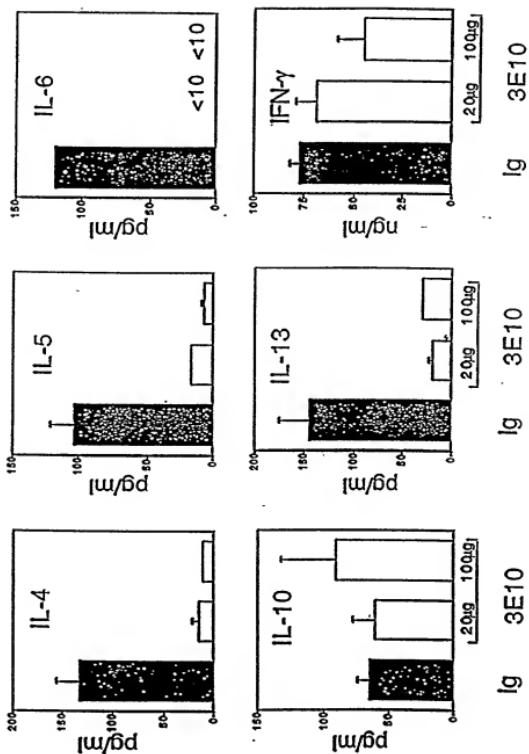


FIGURE 26

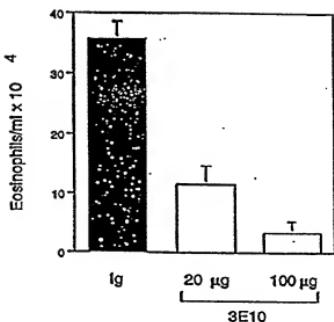


FIGURE 27 A

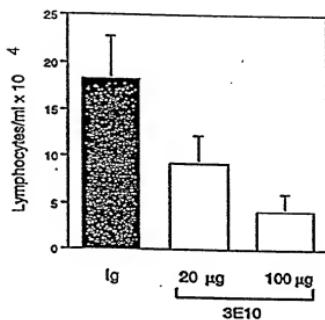


FIGURE 27 B

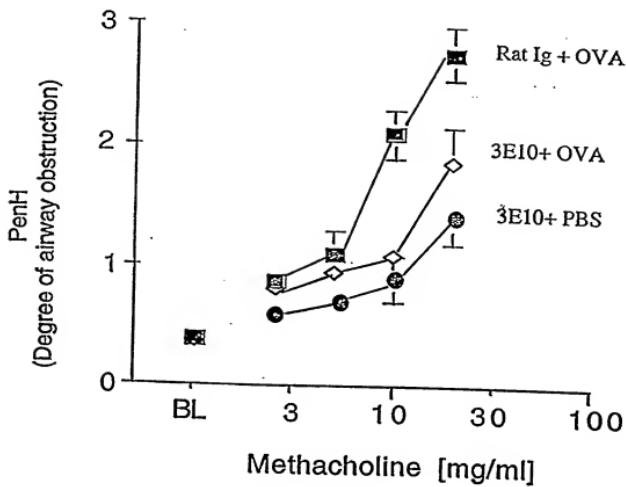


FIGURE 28

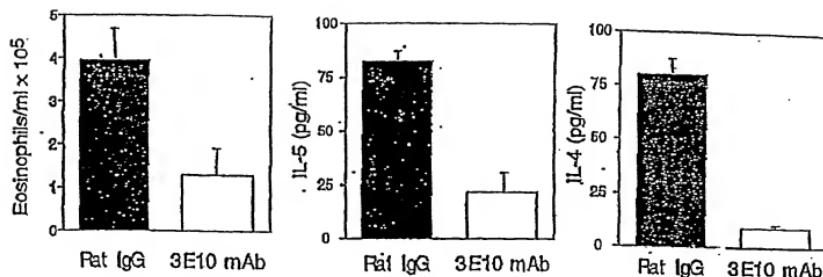


FIGURE 29 A

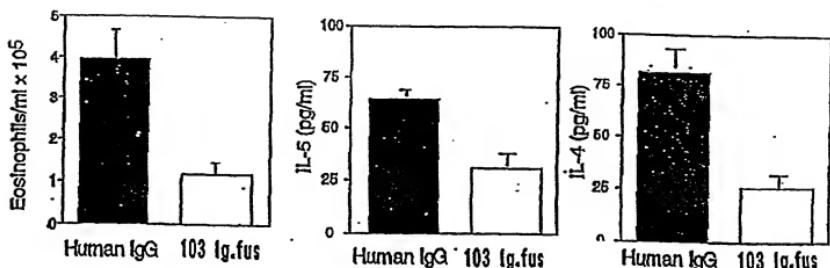


FIGURE 29 B

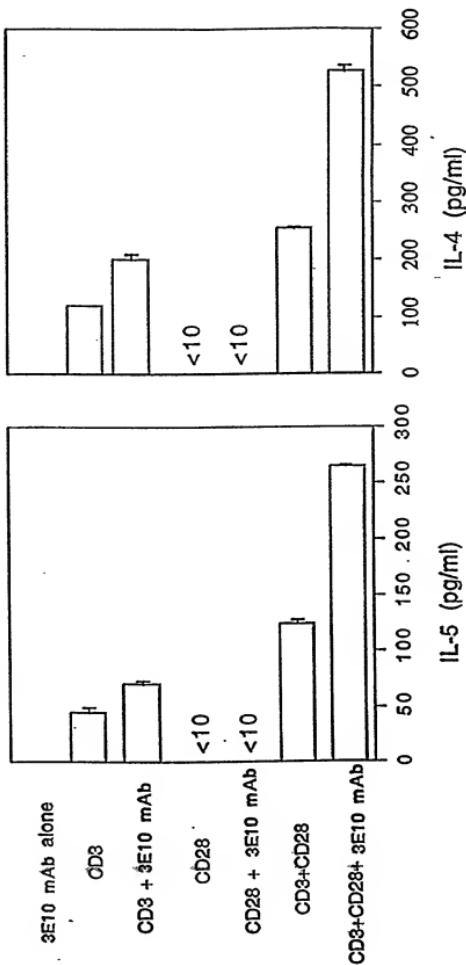


Fig. 30

Renal histology at 72hrs post  
reperfusion

+RbIg +a200

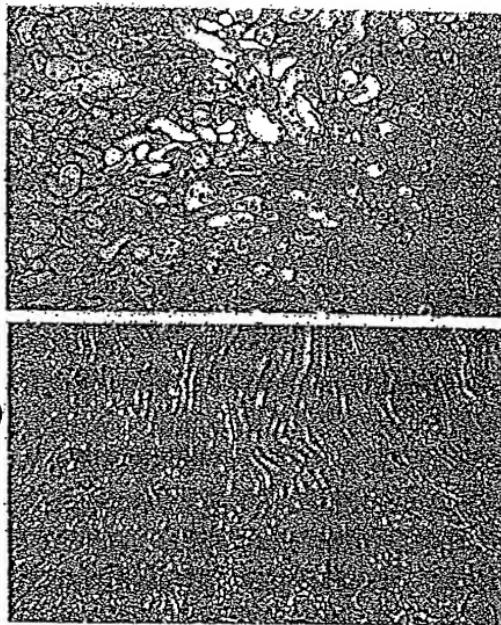


FIG. 31

## Blockage of gene 200 during renal ischemia/reperfusion injury

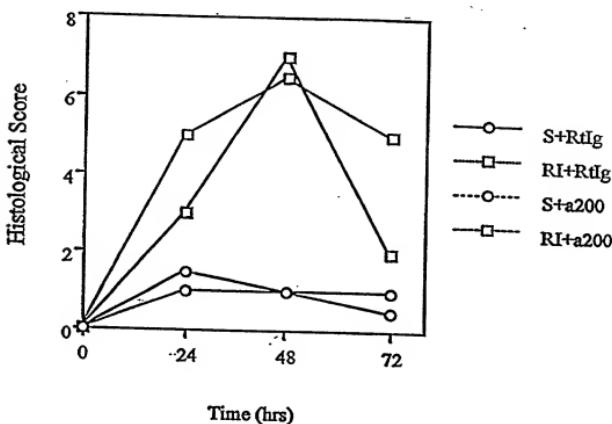


FIG. 32